

Responsive to the withdrawal of claims 20 and 22-26 from consideration is being directed to a non-elected invention, Applicant hereby respectfully traverses this restriction. First of all, Applicant submits that claim 19 is generic to all the claims in that allowance of claim 19 in its generic form should thereby result in the allowance of all the claims depending therefrom (i.e., claims 20-26). Additionally, Applicant submits that claims 20 and 22-26 serve to further define and/or further limit the base claim 19. Claims 20 and 22-26 do not introduce a distinct class of invention not previously considered (i.e., claims 5 and 6) were method and structure claims, respectively), nor do claims 20 and 22-26 introduce a distinctly species of invention. Specifically, Applicant contends that it is up to the Examiner to show that the features discussed in claims 22-26 could not be displayed by the structure established in claim 19 or even the more specific structure established by claim 21. For all the foregoing reasons, Applicant submit that, upon allowance of independent and generic claim 19, claims 20 and 22-26 need also be allowed and the restriction related thereto be withdrawn.

Responsive to the rejection to claims 19 and 21 based upon informalities, Applicant has amended claim 19, keeping in mind the comments offered by the Examiner. Applicant submits that claims 19 and 21 are now in allowable form and hereby respectfully requests that the objection thereto be withdrawn.

Responsive to the rejection of claims 19 and 21 under 35 USC § 112, first paragraph, Applicant has amended claim 19, keeping in mind the comments offered by the Examiner. Specifically, the claim language considered to be new matter by the Examiner has been
5 deleted from claim 19. Accordingly, Applicant submits that claims 19 and 21 are now in allowable form and hereby respectfully requests that the rejection thereof under 35 USC § 112, first paragraph, be withdrawn.

Responsive to the rejection of claims 19 and 21 under 35 USC §
10 112, first paragraph, as being based upon a disclosure which is not enabling, Applicant hereby respectfully traverses this rejection. The Examiner contends that sputter deposition is critical or essential to the practicing invention but not included in the claims. Applicant traverses this rejection on the grounds that
15 "film deposition", as set forth in claim 19, is fully supported by the disclosure and sufficiently sets forth the element that is critical or essential to the practice of the invention. Applicant submits that while it is critical that multiple layers are deposited or formed as part of the procedure of fabricating a 3-
20 dimensional periodic structure as set forth in claim 19 it is not critical or essential that such layers be formed by sputtering. Applicant submits that the use of terminology "film deposition" in claim 19 is suitable for crafting a broad definition of the instant invention that is still fully enabled by the present disclosure.

Stated in another way, one of ordinary skill in the art would accept "a film deposition technique" as a broad definition for "sputter deposition". For all the foregoing reasons, Applicant submits that claims 19 and 21 are fully enabled by the disclosure and hereby respectfully requests that the rejection thereof under 35 USC § 112, first paragraph, be withdrawn.

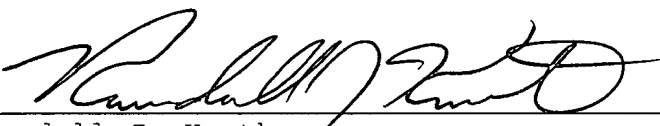
Responsive to the rejection of claim 21 under 35 USC § 1121, second paragraph, Applicant hereby respectfully traverses this rejection. The Examiner contends that it is unclear what Applicant means by the limitation "a period of said structure". Applicant submits that a "period of a structure" refers to a repeating unit of the structure. Applicant has clearly set forth that the structure being created is periodic in nature, thereby indicating that the structure is to be composed of repeating units. Merriam-Webster's Collegiate Dictionary, 10th Edition, "periodic" is defined as "occurring or recurring at regular intervals," as well as "consisting of or containing a series of repeated stages, processes, or digits." Therefor, Applicant submits that claim 21 is in allowable form and hereby respectfully requests that the rejection thereof under 35 USC § 112, second paragraph, be withdrawn.

Responsive to the rejection of claims 19 and 21 under 35 USC § 102 (a) is being anticipated by "Fabrication of submicrometre 3D periodic structures composed of Si/SiO₂" by Kawakami, Applicant

hereby respectfully traverses this rejection. Applicant submits that the cited reference by Kawakami, with a publication date of July 3, 1997, does not qualify as prior art against the present claims. Specifically, Applicant claims priority based upon Japanese Patent Application Number 9-144951 and have submitted herewith a translated copy of the entire priority document, in accordance with 37 CFR § 1.55 (a)(4), MPEP § 201.13, and 35 USC § 119 (b)(3), in order to properly perfect priority. Thus, Applicant submits that the present invention, as set forth in claims 19 and 21, is in condition for allowance and respectfully requests that the rejection based upon Kawakami be withdrawn.

If the Examining Attorney has any questions or comments that would speed prosecution of this case, the Examining Attorney is invited to call the undersigned at 260/485-6001.

Respectfully submitted,


Randall J. Knuth
Registration No. 34,644

RJK/stel10

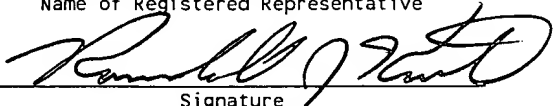
Encs: Marked-Up Claims
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RANDALL J. KNUTH, P.C.
3510-A Stellhorn Road
Fort Wayne, IN 46815-4631
Telephone: 260/485-6001
Facsimile: 260/486-2794

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner for Trademarks, 2200 Crystal Drive, Arlington, VA 22202-35133, on: February 21, 2003.

Randall J. Knuth, Regis. No. 34,644
Name of Registered Representative


Signature
February 21, 2003
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MARKED-UP CLAIMS

Please amend claim 19 as follows:

19. A method of fabricating a three-dimensional periodic structure comprising the steps of:

forming layers with at least two kinds of materials sequentially and periodically on a substrate having
5 two-dimensionally periodically recessed or projecting portions;
and

employing sputter etching [one of] either separately from film deposition [and] or simultaneously with film deposition, at least in a part of said structure, while keeping a pattern of the
10 recessed or projecting portions [without alignment process per each layer].

20. The method of claim 19, wherein said deposition is further characterized by incidence of particles.

21. The method of claim 19, wherein a period of said structure further comprises at least two kinds of layers including a layer mainly comprising SiO₂ and a layer mainly comprising Si.

22. A structure fabricated by the method of claim 19, comprising at least two kinds of material, at least one said material being a transparent material whose period in at least one dimension is of the order of or a fraction of a wavelength of